

### **REMARKS**

Reconsideration and withdrawal of the rejections of this application and consideration and entry of this paper are respectfully requested in view of the herein remarks and accompanying information, which place the application in condition for allowance.

#### **I. STATUS OF CLAIMS AND FORMAL MATTERS**

Claims 1, 3-5, 19, and 20 are currently under consideration. Claims 1 and 3-5 are amended without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

No new matter is added.

It is submitted that the claims herewith are patentably distinct over the prior art, and these claims are in full compliance with the requirements of 35 U.S.C. §112. The amendments to the claims presented herein are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply to clarify the scope of protection to which Applicant is entitled.

Support for the amended claims can be found throughout the specification as originally filed. For instance, support for amended claims 1 and 3-5 can be found, as an example, in Example 6 of the specification.

#### **II. REJECTIONS UNDER 35 U.S.C. § 112 ARE OVERCOME**

Claims 1, 3-5, 19, and 20 are maintained as rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The rejection is respectfully traversed.

According to the Office Action, the specification does not reasonably provide enablement for a transgenic mouse comprising a homozygous disruption of DAP12 in its genome, wherein the transgenic mouse exhibits hypomyelinos of the thalamus, and wherein the mouse exhibits neuropsychiatric disorders associated with disruption in DAP12 gene function. The Office Action contends that the specification does not teach that the exhibition of neuropsychiatric disorders is independent of the Nasu-Hakola disease.

The Office Action admits that the specification is enabling for a transgenic mouse that exhibits hypomyelinos of the thalamus and exhibits Nasu-Hakola disease (page 2, lines 18-21). The Office Action also indicated that the Nasu-Hakola disease is "characterized by CNS hypomyelinos" and results in the exhibition of symptoms which include dementia and schizophrenia (page 3, line 19-20). Further, the Office Action suggested that Applicants indicate that the neuropsychiatric disorders are associated with Nasu-Hakola disease (page 5, lines 1-3).

Initially, Applicants respectfully draw attention to the claim amendments herein. Importantly, claim 1 is clarified as relating to a transgenic mouse model "showing hypomyelinos of the thalamus that can be a cause of Nasu-Hakola disease, and showing a neuropsychiatric disorder caused by the hypomyelinos." The amendment of claim 3 indicates that the myelinogenesis developmental disorder can be a cause of Nasu-Hakola disease. Further, subject matter relating to neuropsychiatric disorders in claims 4 and 5 is clarified as "being caused by the hypomyelinos."

In view of the claim amendments, notably the clarification of claimed subject matter related to hypomyelinos and the neuropsychiatric disorders, Applicants argue that the instant claims are enabled by the specification. Applicants note that it is more technically accurate to indicate that the neuropsychiatric disorders are shown by hypomyelinos which can be a cause of Nasu-Hakola disease, rather than indicate that the neuropsychiatric disorders are shown by Nasu-Hakola disease *per se*. The specification clearly discloses this relation between hypomyelinos and neuropsychiatric disorders, notably in Example 6.

Therefore, in consideration of the indications made by the Office Action and the Applicants' explanations above, it is asserted that the instant claims, herein directed to a transgenic mouse model showing hypomyelinos of the thalamus that can be a cause of Nasu-Hakola disease and showing a neuropsychiatric disorder caused by the hypomyelinos, is enabled by the specification.

Accordingly, reconsideration and withdrawal of the rejection under § 112, first paragraph, is respectfully requested.

**REQUEST FOR INTERVIEW**

If any issue remains as an impediment to allowance, an interview with the Examiner and SPE are respectfully requested and the Examiner is additionally requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

**CONCLUSION**

In view of the remarks and amendments herewith, the application is in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date, and, the Examiner is invited to telephonically contact the undersigned to advance prosecution.

Respectfully submitted,  
FROMMER LAWRENCE & HAUG LLP

By: Deborah L. Lu  
Thomas J. Kowalski  
Reg. No. 32,147  
Deborah L. Lu  
Reg. No. 50,940  
Telephone: (212) 588-0800  
Facsimile: (212) 588-0500